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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,954	03/23/2004	Kent Lee	20020606.ORI	2336

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EXAMINER

WU, EUGENE TONG

ART UNIT	PAPER NUMBER
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3766

DATE MAILED: 08/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No. 10/806,954	Applicant(s) LEE ET AL.	
	Examiner Eugene T. Wu	Art Unit 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-6 and 8 is/are rejected.
- 7) ☒ Claim(s) 2,3 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "32" has been used to designate both "heart" and "A Pace".

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:
 - a. Page 3: Figure 3 is not described in the "Description of the Drawings".
 - b. Page 4: Line 16, "programmable" appears to be a typographical error.

Appropriate correction is required.

Claim Objections

3. Claims 1 and 3 objected to because of the following informalities:
 - a. Claim 1, line 9: "heartbeats" appears to be a typographical error.
 - b. Claim 3, line 12: "by biphasic" appears to be a typographical error.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Sholder et al. (US 6,122,546).

6. Regarding claim 4, Sholder et al. discloses the invention substantially as claimed, including providing a cardiac rhythm management device (Col. 9, lines 28-67; Col. 10, lines 1-38; Col. 13, lines 40-67; Figures 1, 10-12). Sholder discloses determining an average time interval (Col. 9, lines 6-27; Col. 14, lines 60-67; Col. 15, lines 21-27; Col. 23, lines 13-26). Sholder discloses determining whether a given PR interval is "within" a predetermined percentage of PR_{avg} , which is considered equivalent to Applicant's determining whether a given PR interval is "less than" a predetermined percentage of PR_{avg} (Col. 20, lines 8-28). Sholder discloses determining whether a given PR interval falls within a non-physiologic time range (Col. 20, lines 29-54; Col. 23, lines 27-42, 64-67; Col. 24, lines 1-8). Sholder further discloses declaring a nonconducted beat, which is considered equivalent to Applicant's ectopic beat (Col. 6, lines 8-18; Col. 9, lines 6-27; Col. 14, line 1; Col. 19, lines 61-67; Col. 20, lines 1-54; Col. 23, lines 27-42, 64-67; Col. 24, lines 1-8).

Regarding claim 5, Sholder further discloses a predetermined percentage of "within ± 10 -20%", which is considered equivalent to Applicant's "less than about 80 percent" (Col. 20, line 18).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sholder et al. (US 6,122,546).

9. Regarding claims 1 and 6, Sholder discloses the invention substantially as claimed, as described above. Sholder does not disclose expressly a non-physiologic time range less than about 80 ms.

Instead, Sholder discloses a non-physiologic time range as 25 ms or 0-100 ms less than the PR_{avg} , where the PR_{avg} is normally "120 to 200 ms" (Col. 2, lines 23-35; Col. 23, lines 27-42, 64-67; Col. 24, lines 1-8). At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to modify the non-physiologic time range of Sholder to be less than about 80 ms, because Applicant has not disclosed that choosing a time range of less than about 80 ms provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Sholder's method and Applicant's invention to perform equally well with either the time range taught by Sholder or the claimed time range less than about 80 ms, because both time ranges would perform the same function of determining whether or not a beat is ectopic. Therefore, it would have been prima facie obvious to modify Sholder to obtain the invention as specified in claims 1 and 6, because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Sholder.

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sholder et al. (US 6,122,546) as applied to claim 4 above and further in view of Stoop et al. (US 5,549,647).

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11. Sholder discloses the invention substantially as claimed, as described above. Sholder does not disclose the step of providing a dynamic PVARP. However, Stoop teaches the use a dynamic PVARP to avoid pacemaker-mediated tachycardia (Col. 1, lines 32-38; Col. 2, lines 15-29; Col. 4, lines 24-46, 58-67; Col. 5, lines 1-20; Col. 8, lines 64-67; Col. 9, lines 1-17). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the method of Sholder to provide a dynamic PVARP in order to avoid pacemaker-mediated tachycardia.

Allowable Subject Matter

12. Claims 2, 3, and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- a. Levine et al. (US 5,417,714) shows a method measuring the PR interval to determine whether or not a beat is ectopic.
- b. Mouchawar et al. (US 6,671,548) shows a method of determining arrhythmia using the PR interval.
- c. Sholder et al. (US 5,873,895) shows a method of measuring the PR interval to determine whether or not a beat is ectopic.
- d. Stadler (US 6,567,691) shows a method of treating arrhythmia using PR intervals.
- e. Olson et al. (US 6,487,443) shows a method of treating arrhythmia using PR intervals.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene T. Wu whose telephone number is (571) 272-3109. The examiner can normally be reached on M-F: 8 AM - 5 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



ETW
08/28/2006



Robert Pezzuto
Supervisory Patent Examiner
Art Unit 3766